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**EFFECTS OF REDUCED INFRASTRUCTURE
AND BASE OPERATING SUPPORT
INVESTMENTS ON AIR FORCE READINESS**

HEARING

BEFORE THE

SUBCOMMITTEE ON READINESS

OF THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES

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HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
SUBCOMMITTEE ON READINESS,
Washington, DC, Wednesday, January 13, 2016.

The subcommittee met, pursuant to call, at 9:03 a.m., in room 2212, Rayburn House Office Building, Hon. Robert J. Wittman (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. ROBERT J. WITTMAN, A REPRESENTATIVE FROM VIRGINIA, CHAIRMAN, SUBCOMMITTEE ON READINESS

Mr. WITTMAN. I call to order the House Armed Services Committee Subcommittee on Readiness.

I want to wish everybody a good morning and thank you all for being here today for our Readiness hearing on the effects of reduced infrastructure and base operating support investments on Air Force readiness.

This is our third hearing on this topic. The Army, the Marine Corps, and the Navy have previously testified on this topic, and I look forward to hearing the views of the Air Force today.

This morning, we have with us Major General Timothy Green, U.S. Air Force, Director of Civil Engineers, Deputy Chief of Staff for Logistics, Engineering, and Force Protection, Headquarters, U.S. Air Force; Major General Jerry D. Harris, U.S. Air Force, Vice Commander, Air Combat Command, Langley Air Force Base in the great State of Virginia; Brigadier General Christopher Azzano, U.S. Air Force, Commander, 96th Test Wing, Air Force Materiel, Eglin Air Force Base, Florida.

During the last several years, the subcommittee has largely focused on operational readiness recovery since the drawdown of forces in the Middle East. The Department of Defense has implemented plans to correct readiness trends, but those plans have assumed risk in infrastructure investments and reduced mission support services to redirect funds from installation programs to other operational and training budget priorities.

The purpose of this hearing is to clarify the Air Force's choices for infrastructure and installation services, to address funding priorities and mitigation strategies, and to gather more detail on the current and future impacts of these decisions on operations and training.

As the witnesses testify today, I would ask you to address existing risks being taken in installation investments and impacts to op-

erations and training. How will the recent 2-year budget reshape those risks and impacts? And what will be the level of risk and impacts over the next 10 years if budget levels remain constant or return to sequestration levels?

I would now like to turn to our ranking member, Madeleine Bordallo, for any remarks that she may have.

Thank you, Madeleine.

[The prepared statement of Mr. Wittman can be found in the Appendix on page 27.]

STATEMENT OF HON. MADELEINE Z. BORDALLO, A DELEGATE FROM GUAM, RANKING MEMBER, SUBCOMMITTEE ON READINESS

Ms. BORDALLO. Thank you very much, Mr. Chairman, for arranging this hearing. And I want to thank our witnesses for being here this morning.

This hearing concludes the first series of hearings we are conducting to look into how reduced infrastructure investments affect the readiness of our force. However, I am sure that this discussion will continue.

And, to the witnesses, again, thank you for all your service and for being here today.

Over the years, this subcommittee has closely examined issues affecting the state of our military's readiness and the devastating impacts that sequestration and unpredictable funding have had. Although the Air Force is the last service to be examined in this series of hearings, it is clear that it is far from immune to the fiscal challenges that have required you to balance competing requirements with limited funds. And to that end, it is in these subcommittee hearings that we are attempting to understand the impact that budget decisions regarding military infrastructure and installation support are having and will have on training and readiness.

Now, we have heard evidence from several military installations that is indicative of adverse impacts to training and operations due to degraded infrastructure and installation support. If this is the case and there are indications of a broader trend, the subcommittee needs to understand what the impacts are and what needs to be done to address the situation.

Since fiscal year 2013, when the Air Force cut facilities sustainment funding by nearly \$1.2 billion, we have seen FSRM [facilities, sustainment, restoration, and modernization] funding consistently below the OSD [Office of the Secretary of Defense] model of 90 percent. And we will hope to get more information on what these figures actually are. As a result of significantly degraded infrastructure and as previous witnesses have testified, our full-spectrum readiness recovery timelines now extend beyond 2020, and even that can be accomplished only with stable funding.

I hope that today our witnesses will provide specific examples of how risk in the infrastructure enterprise has affected the Air Force readiness or could affect the readiness in the future. For example, we need to know if training opportunities are being lost, scaled down, deferred, or canceled because range safety and training functions are not adequately funded. We need to know if training en-

gements are no longer realistic or adequate to meet current operational needs because the facilities in which such training is conducted are no longer serviceable. Furthermore, we need to understand the investments in money and manpower which are lost with each affected exercise.

Without fully equipped, functioning, and well-maintained installations, we cannot generate the readiness that is needed. And our men and women in uniform, as well as our civilian personnel, performing their duties around the country and the world deserve that.

So, again, thank you, Mr. Chairman, for this hearing. This concludes the last of the hearings that we will be conducting, and I look forward to hearing from our witnesses.

And I yield back.

Mr. WITTMAN. Thank you, Madeleine.

General Green, I have been told you will be making one opening statement on behalf of all the witnesses, so please proceed. And as a reminder, your written testimony has already been made available to our members and will be part of the official record.

General Green.

STATEMENT OF MAJ GEN TIMOTHY S. GREEN, USAF, DIRECTOR OF CIVIL ENGINEERS, DEPUTY CHIEF OF STAFF FOR LOGISTICS, ENGINEERING, AND FORCE PROTECTION, HEADQUARTERS, U.S. AIR FORCE; ACCOMPANIED BY MAJ GEN JERRY D. HARRIS, JR., USAF, VICE COMMANDER, AIR COMBAT COMMAND, LANGLEY AIR FORCE BASE, AND BRIG GEN CHRISTOPHER P. AZZANO, USAF, COMMANDER, 96TH TEST WING, AIR FORCE MATERIEL COMMAND, EGLIN AIR FORCE BASE

General GREEN. Thank you, and good morning.

Mr. WITTMAN. Good morning.

General GREEN. Chairman Wittman, Ranking Member Bordallo, distinguished members of the subcommittee, we are honored to represent America's airmen as we testify before you today on the effects of reduced infrastructure and base operating support investments on Air Force readiness.

For the Air Force, air bases, both enduring and expeditionary, serve as foundational platforms from which we project power through air, space, and cyberspace. The reliability, redundancy, and resiliency of our installation infrastructure are keys to enabling global vigilance, global reach, and global power and, therefore, are critical to deter and defeat those who wish to do us harm.

Recent Air Force budgets have been rooted in necessity and based upon our long-term strategy and vision supporting the Air Force's three priorities of taking care of our people, balancing today's readiness and tomorrow's modernization, and making every dollar count to help ensure that we can field, operate, and maintain a credible and affordable future force.

Ready and resilient installations are an important part of the Air Force vision, but it is only one part. The Air Force's fiscal year 2016 budget sustains current warfighting efforts and places the Air Force on a path toward balancing readiness with necessary modernization in order to meet evolving threats. It funds vital military

construction and aircraft beddown projects, addresses facilities sustainment shortfalls, and sustains critical base operating services, albeit at increased risk.

We make every dollar count by targeting limited installation resources for requirements which have the highest consequence on the mission coupled with the highest probability of failure.

Importantly, the Air Force recently stood up the Air Force Installation and Mission Support Center to provide an enterprise view of our installations, leverage lessons learned from across all of our major commands, and constantly strive to improve our core business processes in order to make the best installation investment decisions possible, balanced against maintaining combat effectiveness.

Finally, a key component to help us close the funding gap is to leverage third-party financing where it makes sense. Our current third-party financing efforts are focused on areas that include housing and utilities privatization, energy savings performance contracts, and enhanced-use leases.

Your Air Force was born of innovation. From the first time pioneers of the Army Air Corps found ways to go over and not through, the Air Force has embraced new ways of thinking, taken prudent risks to accomplish the mission, and encouraged innovation to solve hard problems. And we continue to do so today as we concentrate on effectively and efficiently using limited installation resources to ensure mission success.

Sir, as you mentioned, joining me today is Major General J.D. Harris, the Vice Commander of Air Combat Command, who can give you a warfighter's perspective on our infrastructure. Notably, he is also the former Wing Commander of the 56th Fighter Wing at Luke Air Force Base in Arizona and the 8th Fighter Wing at Kunsan Air Force Base in Korea.

You mentioned Brigadier General Chris Azzano. He is the Test Wing Commander at Eglin Air Force Base today. He is also the former Air Base Wing Commander at Tinker Air Force Base in Oklahoma.

Thank you for the opportunity to testify before you today and for your continued support of our total force airmen and their families. We look forward to your questions.

[The prepared statement of General Green can be found in the Appendix on page 28.]

Mr. WITTMAN. Thank you, General Green.

I want to thank General Azzano also for his efforts there and want to make sure, too, that we recognize all the great efforts that go on at our Air Force installations around the world.

So I want to begin with this just to kind of get it laid out; then I want to make sure that we go to other members. As we look at the categories of facilities and the types of installations that the Air Force has in its inventory, can you give us a perspective about which ones are most important in raising and sustaining Air Force readiness?

And I want to begin with General Harris to get his perspective as Vice Commander there at ACC [Air Combat Command] at Langley.

Give us your perspective, General Harris, as you look through the slate of things that you have to do there at Langley—and I have visited there a number of times—looking at some of the challenges that are there, whether it is hangars, whether it is, you know, the lighting systems on the tarmac there. Kind of give us your perspective on how you prioritize. Because, obviously, we are in situation where resources sometimes are short, so you have to figure out, you know, where do you prioritize. And so give us your perspective, as we begin, about what categories of facilities and types of installation services are most important.

General HARRIS. Yes, sir. Thank you for the opportunity.

When we look at the money that we are given and how we prioritize that, we have to look at the entire spectrum, as you have rightly pointed out. So it is the facilities and the infrastructure from our platforms, being our air bases, that we concentrate on when it comes to keeping the installation ready.

But it is much more than that. We also need the training ranges, whether it is an air range over Nevada or Utah or any of the many States that we are flying over the top of, to our space ranges that are off the coast near Cape Canaveral and near Vandenberg. It is very important to us.

And we have also added in the last decade the cyber training areas that we have to work on, which is all infrastructure-based.

Mr. WITTMAN. Sure.

General HARRIS. It is a balance. We have to be ready and win today's fight but also modernize, prepare, and be ready in the future.

And we are constantly making tradeoffs as best we can, using, as General Green had highlighted, the "what is probably going to fail next," the highest probability, and the consequences of those failures. So we have some things that are just so high in consequences—in our nuclear mission, for example—we can't let those fail. So we continue to put emphasis there and on our priority missions.

And that has been our approach, sir. It is: Look at what is probably going to fail next. If we had additional resources, we would get into more of the maintenance to extend and get the preventative work done, but right now we are limited on that.

Mr. WITTMAN. Very good. Thank you.

Ms. Bordallo.

Ms. BORDALLO. Thank you, Mr. Chairman.

General Green, we have heard from previous witnesses that fiscal constraints have required commanders at the Pentagon and in the field to prioritize immediate operational readiness and limited critical maintenance needs over less-pressing infrastructure investments but that this comes with some degree of risk.

So, in your written testimony, you stated that, and I quote, "We are already seeing the effects of this risk at many Air Force installations," and that "failing infrastructure has had a direct impact on mission capabilities."

Could you elaborate on this comment and provide specific examples of these impacts on training and operations and how the Air Force is trying to mitigate these impacts?

General GREEN. Yes, ma'am. Thank you for the question.

I think I would like to tell a little bit of a longer story for this one that will relate many aspects, from training to operations.

So, as General Harris mentioned, we have forces today that operate from the continental United States, so it is more than just training for us, although that is an important component.

When we looked at the nuclear enterprise a few years ago and we began to do some analysis and some work in that area, led by Secretary James, we found that we had a significant underfunding or a significant gap in where our capabilities were and infrastructure in that area. And so, as we looked to recapitalize the nuclear infrastructure, a part of that was the nuclear weapons storage areas, and we found that we needed to recapitalize four and also build a new one, so five facilities. And that is going to be over a 13-year period and at a cost of roughly \$1.3 billion.

So we can't fix everything all at once. We have to look forward.

What has been the impact of that? As we go forward, the committee approved and Congress appropriated funds for fiscal year 2016 for the weapons storage facility at F.E. Warren, which is going to be a pathfinder for us. But when I look at Malmstrom Air Force Base, which I just visited last month, the missile maintenance facility there was built in 1957. And so local engineers began planning for new construction all the way back in 1991.

We are going to be able to do that. It is a \$95 million MILCON [military construction] that we have currently planned for fiscal year 2019. But in the interim, in the last 6 years, we have already spent \$9 million trying to fix emergency problems that we have had and gaps, and we expect to spend another \$11 million in the next 2 years, just to get to where we can have the next MILCON project.

So what is the impact of that? We have had fire suppression systems that have released. We have had water pipes break. We have had floor failures. And so, when we do that in a missile maintenance facility like that, they are not able to do all the training that they are required to do. We suspended training and certification, so the certification of nuclear missile maintenance technicians, for 6 months while we made a repair last year. When those certifications are suspended, fewer airmen—you know, as you go out of certification, other airmen have to come in and do that maintenance. So other airmen were working more shifts, longer hours, while we had this training gap.

That, in turn, kind of gets at some third-order effects. Over the past 5 years, they have seen the retention of those airmen, those maintainers, drop from 75 percent to 20 percent. There is a myriad of reasons. We have a nuclear force improvement plan in place to do that. But, certainly, the infrastructure and the quality of your life, where you work, is a part of that price tag.

So it is not just the dollars that we invest trying to get there. We have difficulty immediately going in and making a fix, so the fixes will often take years. In this case, it is going to be a 13-year fix, an investment plan. And there will be other things that will break and fail in the interim, getting to that fix, and we don't need to spend millions of dollars.

So that is kind of how these things can snowball, in effect, to go forward.

Ms. BORDALLO. A key element of the 2014 facilities sustainment and recapitalization policy memo is the requirement that the services fund sustainment programs at 90 percent or higher.

So could you provide information on Air Force budget request as well at enacted levels for FSRM funding compared to the OSD model since 2013? And what steps is the Air Force taking to meet that OSD requirement?

General GREEN. Yes, ma'am. We have prioritized within the Air Force the sustainment funding and the model funding at a high rate. So we have been at 80 percent, on average, over the years. I think we got up to 81 percent.

And we managed that by taking an asset management approach to it. So, again, getting back to what General Harris said, rather than having a straight investment portfolio, we are trying to understand the condition of our facilities and make that next investment.

So we believe 80 percent has allowed us to be successful from the sustainment perspective. We recognize 90 percent would be desirable, but, again, as we have balanced the risk, we have found that to be an acceptable alternative.

And we have maintained funding in the sustainment of facilities at the expense of military construction in previous years and at the expense of our restoration and modernization accounts, because it is easier to keep good facilities good, to take care of the oil changes, to do the things that we need to do with them. That is a better investment, we believe, than simply trying to fix things on the other end all the time and neglecting the day-to-day sustainment required.

Ms. BORDALLO. Thank you, General.

And I will yield back.

Mr. WITTMAN. Thank you, Ms. Bordallo.

We will now go to Mrs. Hartzler.

Mrs. HARTZLER. Thank you, Mr. Chairman.

And thank you, gentlemen. I have Whiteman Air Force Base in my district, so I very much appreciate all the good work that the Air Force does and I understand the challenges. Of course, we have the nuclear mission there.

And I appreciate the investments that have been made and also your comments about how you have been creative and innovative and trying to find ways to make the most with the amount of money that you have had.

I appreciated the example that you gave of some of the shortfalls. The purpose of the hearing is to determine if there has been a decrease in our readiness due to the lack of investment at the installations and how it has affected our missions.

So, I guess, first of all, do you have any other specific examples? So as we are advocating for more money for our military to help meet some of these shortfalls, do you have anything else that you could share besides the fire suppression systems that released and some of those things?

Mr. GREEN. Yes, ma'am. Since I have talked a lot, I will see if General Azzano has anything he would like to add.

Mrs. HARTZLER. Okay. Great.

General AZZANO. Yes, ma'am. Thank you for the question.

I think probably the best way for me to start is to give a little bit of framework for some of the challenges that we have been facing. I have been an installation commander now for 2½ years, first at Tinker Air Force Base and now at Eglin Air Force Base.

Tinker Air Force Base is a large and diverse installation that is absolutely critical to our ability to wield national power. There are about 460 buildings there, a workforce of 26,000 people. There are seven large military units, wing-level units. Three of those are flying units, and that includes one command and control unit that is Air Force and a nuclear command and control unit that is United States Navy.

Seventy-five percent of the 460 facilities at Tinker are more than 40 years old. We broke ground in Tinker back in 1941, just before World War II took off.

Eglin Air Force Base is the largest installation in the Department of Defense. There are over 3,200 buildings across 724 square miles of that installation. Twenty one percent of those buildings are greater than 40 years old. There is a \$10.8 billion infrastructure value of Eglin Air Force Base, a 20,000-strong workforce, 8 wings. And we conduct daily combat operations, research and development [R&D], test and training out of Eglin Air Force Base. Eglin also—in fact, Eglin is a pre-World War II installation.

Some of the challenges we are seeing as this infrastructure ages are probably best relayed through some stories of things that we have seen over the last few years that have gone wrong with our installations.

In early 2014, a fire suppression system at an Eglin hangar inadvertently activated, dumping 17 feet of foam across a 90,000-square-foot hangar. Five aircraft were impacted, and the hangar was unusable for 83 days as a result of cleanup and an investigation that followed.

The cause of this inadvertent activation was an insufficient heating in the hangar in cold temperatures. Now, as a workaround, we must drain the foam suppression system anytime that there are forecasted to be very cold temperatures down at Eglin, which, fortunately, is not that often, although we had that happen again this week.

By draining that system, it reduces our ability to protect the assets inside the hangar. We still have a water system that can be used in the event of a fire, but the foam suppression system is much more effective.

In the year that that system was built, we had a choice. We could afford to include, to install a fire suppression system that included foam, or we could afford to upgrade the heating system for the hangar. We could not afford to do both. So we chose the item that we thought was going to have greater payback over the long term, which was the suppression system.

Over at Tinker Air Force Base, a little over a year ago, in the middle of the night, one of the electrical substations that powers the largest Air Force depot facility achieved meltdown temperatures in the middle of the night. And I am told that you could see the meltdown from space, it was so bright.

As a result, we lost power to the largest building, Building 3001, at Tinker Air Force Base and many other buildings along the east

side of the complex. That resulted in the loss of three shifts of work at the depot complex, which cost the American taxpayer \$1 million in productivity for those three shifts. And it also resulted in at least a day slip in the depot-level maintenance and repair on dozens of aircraft that were residing in the building at that time.

The total cost to bring in and replace the new substation was about \$6 million. And the interesting side story to that, we had a contractor whose expertise is in power generation come in and take a look and do an assessment of the substation, and the parts of the substation were so old that the contractor didn't even recognize them. So here is somebody whose expertise is in power generation; they did not recognize some of the infrastructure that we were using to support that very critical facility.

Another example from Tinker Air Force Base. We had a water main break under a B-52 that was in depot-level maintenance and repair. It lifted a large concrete slab that came very close to the airplane. It did not damage the airplane, but it could have. And, certainly, if there had been workers there at the time, it could have resulted in injury to the workers.

When the civil engineers at Tinker were trying to turn off the water supply and then troubleshoot, it became clear that the systems, the water systems, underneath the hangars were so old that they didn't even have schematics to determine where the pipes were running.

So those are three stories about some of the challenges we are facing with World War II-era infrastructure. I have others also.

Mrs. HARTZLER. Thank you very much.

Mr. WITTMAN. Thank you, Mrs. Hartzler.

We will now go to Mr. Courtney.

Mr. COURTNEY. Thank you, Mr. Chairman.

And thank you to the witnesses.

General, checking back home with the Air Guard in Connecticut, obviously, you know, at your level and at the frontline level, everyone has been struggling with the budget instability over the last 2 or 3 years. The feedback we were getting is that the sustainment/repair/modernization funds was kind of a place that they could sort of mitigate some of the sequestration challenges that are out there.

And I think that is kind of what you were referring to earlier. I just want to make sure—and maybe not. But maybe you could just sort of help me sort of understand whether that is still going to be a strategy that folks are going to have to continue to look towards, or, you know, is the omnibus going to create, hopefully, maybe a different type of stability in terms of going forward.

General GREEN. Yes, sir. So thanks for the question.

When I was alluding to how we use sustainment dollars, we essentially have three accounts or three sets of funds that we try to focus our efforts on: military construction, which are line-item appropriated; FSRM—and we have restoration and modernization, which we think of as repair. It is about putting the new tow bar on your vehicle, it is about improving it and taking care of things. And then we have sustainment dollars, which are more your oil changes and taking care of things consistently.

So we have chosen to take less risk in sustainment over time and more risk in military construction and restoration and modernization.

But we have not migrated dollars out of the FSRM account to support other activities within the Air Force. We still use the dollars for which they were appropriated by Congress. We treat that as a floor. And we make sure that at the end of the fiscal year we have used every dollar as you intended with the appropriation for our sustainment and modernization.

Mr. COURTNEY. So the ink is barely dry on the omnibus that just passed. I mean, clearly, that was preferable to having a CR [continuing resolution] for 2016. And, hopefully, with the lifting of the caps in the budget resolution, the 2-year budget resolution, can you just sort of share with us whether or not—again, the omnibus and, you know, the hoped-for relief from the sequestration, you know, what does that mean in terms of your job compared to about a year or so ago?

General GREEN. Well, it really means the ability to plan, which is very, very important for us. As we try to balance the risk, we try to build a good plan within the budget that we expect to be able to have, balance the risk across it.

And then the things that emerge late, such as an incident when the—if you think about the Tinker hangar, when the water came up through there—we will go ahead and take care of those, and it just takes money away from whatever we had planned.

But if we don't have a number with which we can plan against, then everything we are doing, work and rework and rework, trying to adjust ourselves to the number. So the omnibus is very important for us to be able to plan. It doesn't always necessarily give us additional funding, but the planning is significant for us.

Mr. COURTNEY. And if we had had a CR for the rest of the year, I mean, using, I guess, 2015 as the top line, what would have been the—would that have aggravated your situation, as opposed to passing an omnibus?

General GREEN. So if we had multiple continuing resolutions, it gives us challenges, where we have to put in place bridge contracts. We have obligation timelines. We have to obligate 80 percent of our funds by a certain point in the year, and the money comes late. So I would say the omnibus certainly helps us avoid those kinds of activities.

For example, we may have to not award a contract for the full period of the year, if we were going to work something for an entire year, because we didn't have the funding for the year. So our contracting officers have to go in and adjust the performance period, have a set of negotiations. And then, when we get the next CR, we have to go through and have the same thing. We negotiate with a contractor for the next performance period.

So continuing resolutions provide a lot of difficulty for us across the entire portfolio. It can be a range contract where we are doing range support. It is not just infrastructure. It is across every area where we have contracting and we have dollars.

So we move the dollars around to account for funding, say, for the first quarter or the first 2 months, and then we have the same challenge again the next 2 months. So it is a lot of additional work.

General HARRIS. Sir, if you didn't mind, I would add to that.

Part of the time, if it delays for a continuing resolution, then we end up with a period of time where some of the workers we could be using are laid idle while they are waiting on that information.

And at a place such as Guam, where we have a fairly small population, if they are all working hard as they can for 6 months but then we have to wait again for this 1 October, this new fiscal year, we can actually reduce the time that we can get the work done that we are working on.

Mr. COURTNEY. Well, thank you. That is a very helpful perspective, that, you know, CR versus omnibus, it is not just a sort of parlor game in Washington; it has real-life consequences.

Thank you, Mr. Chairman.

General AZZANO. Sir, would it be possible to add one other thought to that?

Mr. WITTMAN. Sure. Go ahead.

General AZZANO. So we have a very busy and relatively limited engineering staff at each of our large installations, and the challenge is to divide their time between designing and fixing issues as they arise, real-time, or planning for projects that have programmed funding. And with the uncertainty of funding that is brought about by the continuing resolution, the challenge for me is, where do I allocate that manpower.

So if at the start of the year there is a lot of uncertainty, and then I have to have 80 percent of my funds obligated such that I have 20 percent at the end of the year to expend, what we find frequently is that prioritizing manpower on the most important projects becomes a challenge, because we often don't know whether we are going to get the funding or when we will get the funding. And what we would hate to have happen is projects that are the highest priority that don't get funded because they don't have the adequate design work in time.

Mr. COURTNEY. Thank you, sir.

Mr. WITTMAN. Very good. Thank you, Mr. Courtney.

Mr. Gibson.

Mr. GIBSON. Thanks, Mr. Chairman.

I appreciate the witnesses. Thank you for your leadership, for your sacrifices, and for those of your family, as well.

I want to pick up on something that Representative Bordallo mentioned in her opening remarks. And, particularly, I want to focus in on joint readiness, with the emphasis on the Global Response Force [GRF]. You know, to me, I think it is really important that we fully restore this capability. I think it plays a key role in peace through strength. And, obviously, the Air Force is a major player in this—electronic warfare, fighters, bombers, air mobility, including delivering airborne forces, and then any kind of resupply operation.

And so, as we look at base operations and even some impacts on SRM [sustainment, restoration, and maintenance] and MILCON, please assess for me where you think the reduction in funding has impacted your ability to support joint readiness, including the Global Response Force. If you need to do that for the record, that is fine too.

But then I am interested not only in that but also your assessment on where we are today, given the realities of where we are today, your assessment, and your ability to support joint training and joint operations.

General HARRIS. Well, sir, thank you for that opportunity to talk about some of the best units that we have in our military, such as the 82nd, and what they do for that airborne force.

We have made choices as we are getting smaller as an Air Force and pulling back or consolidating some of our forces. You see that in Europe. We are also doing that in the continental U.S.—for example, at Pope.

One of the things that have we made our commitment to is that we will not step away from the joint training, and that is one of our highest priorities. And as our Secretary continues to say, it is the airmen first. They are the ones who are getting the work done, with everything that we are putting on their shoulders.

Their approach to it is to make sure that, if the unit that is local or has just changed can't support it, then, as you see at Pope, C-17s fly in and do much of that heavy lift from that joint readiness and training, just the way we would do it in combat. So we do share across, and we have a fantastic organization in our airlift community that takes care of that.

Part of that joint readiness is to make sure that we are meeting that mission team. So, for example, when we put in a major repair to a runway like at Andrews, because we are reduced on the amount of money that we have, we will probably fix the runway and then any other emergency items that pop up, but we won't do everything that probably should be done on that routine maintenance, such as looking at the airfield drainage. And we have several of our runways that have truly been flooded or have additional damage to them because we didn't have the funds to get to fixing things that were built in the 1950s or designed in the 1950s and installed at that time that may or may not be suitable for the conditions that we see now.

Mr. GIBSON. Thank you for that, General.

The next area has to do with impacts on retention. I appreciate the quality of our Air Force. That is certainly something we share, to make sure that that is sustained going forward.

So I am interested in your assessments on impacts on housing, child development, MWR [Morale, Welfare, and Recreation], and the panoply of support network that we have and whether or not you have any data that the impacts on the budget has impacted retention.

General GREEN. Thank you. I will start, and then I will probably hand it to Chris to see if he has anything to add from the installation perspective.

But I think how we manage the quality of life in the force is much like we described earlier with the Global Response Force. We focus our resources on those priorities that are most important to the mission and also then to our airmen.

And so, if you think from a services perspective, you mention child development centers and MWR facilities. We are investing in those things that we believe are most important more than those that are less important.

So, for example, over the past few years, with our child development centers, working with the Family Child Care and School Age programs and the off-base partners, we have increased the number and the availability of child care for our men and women and our airmen by 41 percent from fiscal year 2010 to 2014. We have expanded operating hours through the expanded child-care program over the same time period.

If we look at dining facilities, we have expanded the operations through our what we call FTL, Food Transformation Initiative, where we have partnered—and if you think of a traditional dining hall at an installation, that is operated about 56 hours per week. But by linking them together with Transformation and having a vendor come in and help us, they not only operate the dining hall but they may operate the bowling alley, they may operate the club. And then our airmen, who used to only be able to take their meal card to that dining hall, can go to any of those facilities. And so their hours of operation greatly expand.

And then the last one there is fitness centers. We believe that is core.

And so we focus on the core. We have maintained the services in those core areas to a higher degree, but we have also closed 40 MWR facilities in fiscal year 2014. And so there are activities that we have sacrificed in order to ensure that we preserve those things that are most important.

And that gets to the quality of life. Yes, when we make those other sacrifices and those changes, it affects our quality of life, but, again, we are focused on those things that provide the greatest return for our airmen on their quality of life overall.

So it is on the margins. I don't think I have data today that would suggest what quality-of-life factors are driving a retention issue, because I think we are doing a pretty good job of trying to focus on those areas that are the greatest impact.

General Azzano.

General AZZANO. Congressman Gibson, you have hit on a very important question there, and I appreciate that.

We are constantly struggling with the balance between executing the mission, between joint readiness, and quality of life for our airmen and our soldiers and our sailors and their families.

I have a list, an integrated priority list, that encompasses the inputs of all the commanders on Eglin Air Force Base. And there are dozens of items that need work, that need funding, that are either related to infrastructure, to test and training, to research and development, to technology development, or to quality-of-life issues. And, as you might imagine, when we go through and we prioritize and the cut line for those items ends up being much higher on the list than we would like, frequently the quality-of-life items do not make the cut.

Some examples of that are we have needed a new fitness center at Eglin Air Force Base for a number of years. Tinker is the same way. And that has gone unfunded. A way that we have helped mitigate that is by going to 24/7 access, where with the proper authentication you can actually enter the building and make use of the fitness centers.

The challenge there, of course, is upkeep of the facility, and there is some risk to people using the facilities in the middle of the night. If they have an issue, then there may not be anybody there to help them. We try to work around that with proper training and instruction, and so far we have been very successful.

Other quality-of-life issues: HVAC [heating, ventilation, and air conditioning] systems that are old. Very humid environment in Florida. Lots of people in the middle of the summer working in very warm and damp buildings, despite our best efforts.

We actually closed a dormitory a number of years ago, 280 people, because of an HVAC system that was so old we couldn't find parts for it. There was mold growing in the facility. And, for a time, we had asked the airmen that were living there to use a diluted bleach solution and wipe down their walls regularly to prevent the mold from growing.

So absolutely unacceptable conditions, and we ended up closing that. But what that meant was that 288 airmen had to then go and live on the economy. These are 288 airmen that were given to us by their mothers and fathers to care for them, to train them, to help them with those first few years of transition into the military life, which can be difficult for many people, and we were unable to fulfill that. It also cost us extra money because we had to issue BAH [Base Allowance for Housing] to the airmen that normally would have lived in the dorms. So by no means a situation we want to be in.

The replacement dormitory for that is scheduled to be funded sometime in the next 5 years. So a high-priority item that has still not made the cut list over the last few years.

We need a new training and education center.

And believe it or not, we have even prioritized to the point where roof repairs, roof leaks, are either structural and could cause potential damage to equipment and cause a threat to people who are working in the facilities or they are cosmetic. So there are roof leaks that we are aware of that we have not fixed. And to be working in an environment where you have to put buckets under the drips certainly is not helping retention.

Mr. GIBSON. And I know my time has expired here.

Gentlemen, thank you for that testimony. I have listened and taken good notes here. I know it is not easy. You are balancing risk, and you are making hard decisions. And I appreciate this testimony here today, which will, I think, be helpful to us.

Mr. Chairman, I yield back.

Mr. WITTMAN. Sure. Thank you, Mr. Gibson.

I want to remind our witnesses, in fairness to all of our members here that would like to ask questions, if you will keep up with the clock, and when it turns red, if you will look for the closest opportunity to wrap up your questions.

We will provide a second opportunity for our panelists here to ask questions, so you will be able to get back to that, so don't be worried about missing that opportunity.

Mr. Scott.

Mr. SCOTT. Thank you, Mr. Chairman.

And, gentlemen, thank you for being here.

I represent Robins Air Force Base and Moody Air Force Base in Georgia. And I have several friends who are contractors, and one of the things that I hope we are able to deal with is this issue of forcing things to the lowest bid short-term and that we will soon find a way to give you a way to accept the bid that is the best value long-term instead of what meets a short-term parameter.

But I want to speak to you specifically about the Air Force, in 2014, said they would shift away from the longstanding model of decentralized control and execution for providing installation support and that you were going to stand up a new command. What progress has been made in standing up the Installation and Mission Support Center?

General GREEN. Yes, sir. Thank you.

Great progress. We already have—it is up, and it is operational. We call it the initial operation capability. And so they have gone through and they have taken responsibility for prioritizing our projects, for example, our programs. They are running all of our service programs for the Air Force. The engineering programs are the same way.

And so they are already learning lessons from across the enterprise and able to apply that, to the benefit of the entire Air Force. So I think they are well on their way and they are making good decisions today. They are setting their processes, but I am very comfortable in saying it is accomplishing already the things that we intended for it to do.

Mr. SCOTT. So the goal was a reduction in duplication and efficiencies. Are you seeing any cost savings yet from the new system?

General GREEN. So I don't know that we can say there is cost savings at the installation impacts, because those are budget-driven decisions. So I would say that the impact, in that case, is really about the effectiveness or the appropriateness of the decisions that they are making within the construct of the AFIMSC [Air Force Installation and Mission Support Center].

We certainly have significantly reduced the number of personnel who are performing this work across the Air Force, and so roughly about 920 folks fewer are doing that work today than they were previously. And, again, it gets to that decentralized versus centralized look that we are able to make now with technology and the tools that we have in place today that we didn't before.

Mr. SCOTT. Okay.

So with regard to working capital fund organizations like the depots, do you have enough flexibility in the sustainment and restoration and modernization accounts and the base operations for programs, or is there a need for more flexibility there?

General GREEN. I believe we have enough flexibility today. I have not gone back and looked at the depot funding specifically in light of your question, so I can do that. But, today, nobody has come to suggest to us, at my level at least, that they need more flexibility. We try to make that balance. So I will check on that.

[The information referred to can be found in the Appendix on page 43.]

Mr. SCOTT. And the conditions at the depots—General, you spoke a lot about the conditions at one of the depots. The best depot in the United States is Robins. Could you just speak to what efforts

are being made to improve the facilities at the depots across the country?

General AZZANO. Yes, sir. I am happy to give you my perspective on that.

Obviously, the best thing to do for our depots would be to completely recapitalize the infrastructure. And when we have a new platform, like the KC-46, that requires a significant amount of space and manpower to sustain that weapons system over its life-cycle, that is exactly what we are doing. We are devoting MILCON funds to that program to make that happen.

For our aging fleet, for our B-1s, B-52s, and some of the other older aircraft, F-15s, those are being maintained, sustained, many of them, in World War II-era facilities. Those facilities are large. The recapitalization bill for something like that would be tremendous.

So what we find ourselves frequently doing is doing the best preventive maintenance we can and then waiting for things to break. And when I say "waiting," I mean, expecting that they are going to break while we are busy doing preventive maintenance and working some of the sustainment projects that have actually been funded. We try to get ahead in the design and the management of some of our sustainment projects in the event there is fallout money.

So I think we are doing a good job there, but the long-term challenge is having that 911 capability, if you will—we had a water main break, we had a roof cave in—that we can address real-time, and at the same time looking ahead to very large and complicated facilities and saying, where do we look next? What is the next most important project? Where will we spend the next dollar that we have? And we have a fairly robust priority process that we go through to achieve that.

Mr. SCOTT. Well, gentlemen, thank you for your service.

Mr. WITTMAN. Thank you, Mr. Scott.

General Azzano, I want to go back to the response you gave a couple of questions ago and ask, from your perspective—I understand that at the corporate Air Force level there are directives on infrastructure and on installation support decisions. And we know that those filter down and then, from that standpoint, there are decisions that are made at the base level. And you talked about how those decisions are made, where the shortfalls are, and how you try to cobble together both resources and decisions to do that.

Give me your perspective on how it affects the mission support and operations there at Eglin. And then if you can provide some additional examples. You started on some, with the barracks there, with some of the older hangars, with water mains, those kinds of things. But give us your perspective on how those facility problems that may not be in the direct funding stream or may only get funded if there is an emergency affect overall operational readiness.

Because what you are doing is listing them. When you are saying, these things are tiered and we are going to do those in order, a number of those at the bottom of the list are not going to be funded anytime soon. The other way they jump to the top of the list is for there to be an emergency. Obviously, at some point, as that list grows, the impact on readiness continues to grow.

Give me your perspective. And you laid out some examples, but I would like to hear maybe a few more that are down on the list that may not even come to fruition because they don't reach an emergency situation. But give us your perspective about how that affects operational readiness.

General AZZANO. Chairman Wittman, thank you for the question. You really hit on one of my key day-to-day challenges and concerns, and that is that at some point the aging infrastructure will begin to fail at a rate that, whereas today I can handle the emergency requirements that support day-to-day mission operations, they are going to fail to a rate at some point where I will no longer be able to do that.

My sense as an installation commander now for 2½ years is we are not there yet, but I would be—I guess I am unwilling to hazard a guess at this point, but we are not that far off. And that is based on, I guess, a gut feeling of watching things over the last 2 years at a very close perspective of the risk that we are taking in some key areas.

There are a number of base operations support examples of things that fell below the cut line. One of them, a number of years ago we canceled our grounds maintenance contract at Eglin Air Force Base. And we canceled that because the \$3 million contract, we needed it for a higher priority, to sustain a facility that was in bad need of repairs.

As a result, to offset that, we went and got some help from the local Federal penitentiary, so we have inmates come in and do the grounds work now. It is not the same quality as the contract would have been. They require us to provide supervision. These are the same people that we have in very limited numbers that we could be applying to other tasks. And so it has taken its toll on us.

Another example that concerns me that really illustrates the balance between risk that we take in each of our investments is force protection. So I have a very large installation, and there are a lot of ways to gain access to that installation. In the aftermath of Chattanooga and the events in Paris, we are obviously concerned about anti-terrorism and our ability to protect the people that live and work there.

We have a very long list of items that could benefit from focused anti-terrorism funding. And as a result, I, as the installation commander, am taking risk. What is more important today; is it more important to repair that airfield or more important to install a serpentine entryway into one of my gates? So those are the kinds of questions that I am grappling with.

Another key investment area that I hadn't mentioned yet is information technology infrastructure. So we have a lot of aging network architecture. We have a lot of old copper wire for our communication systems. In 2017, the existing communication infrastructure will reach its useful life. The plan is for us to transition over to Voice over Internet Protocol. We have not achieved the level of investment that we need yet to make that happen by 2017, by the time it ages out. So ongoing challenges there.

Mr. WITTMAN. Gotcha. Very good. Thanks for that perspective.

General Green, I want to maybe take a step up, as far as from the base level to the overall Air Force perspective, on where we are

in restoring full-spectrum readiness and the association that it has with infrastructure and installations and facilities support.

Give me your perspective based on where we are right now. We now have the Bipartisan Budget Agreement of 2015, which lays out for both 2015 and 2016 the top-line spending elements, so there is some certainty there about what that number is. Give me your thoughts about how that affects the rate of ascendance in getting back to full-spectrum readiness.

So if you can give us, you know, a date about when you expect to get it back to full-spectrum readiness, the impact that this new budget agreement has on being able to put in place or either keep status quo, accelerate, or possibly in some instances maybe even losing ground on your infrastructure projects and your facilities and installation support as it relates to the effort to establish full-spectrum readiness, or re-establish it.

General GREEN. Thank you.

So, from a facility perspective, what we believe is that the current agreement and certainly the fiscal year 2016 budget has really arrested the decline that we were experiencing. The challenge will be sustained investment over time. As I alluded to earlier, we are not going to get well in a year or in 2 years. We can't afford it, we couldn't execute it. And so it is about an ability to project sustained investment over a longer period of time.

For us on the installation side of the business, to be comfortable that we are delivering the capabilities that we need so that we are not waiting for things to break unexpectedly, we believe we need about a consistent investment that would equal to about 2 percent of our plant replacement value. So if the plant replacement is \$100 million, then about 2 percent of that a year should go into our FSRM accounts, our maintenance and repair, and our MILCON and share that.

And we think a sustained investment like that over a period of years could help put us back on our feet so that we weren't worried about the unexpected outages and the breakages that we have heard described today.

So that is what it would take for us. A 2-year budget deal gives me some hope, but I would say right now we are just arresting—I do not see us in an ascent phase and improving ourselves from an infrastructure perspective.

And, again, as you noted, the infrastructure is only one aspect of our readiness. And so the Air Force certainly trains against all components of readiness to deliver capability.

And, General Harris, I don't know if you want to address any of those others or—

Mr. WITTMAN. General Harris, I will ask you, too, for you to share that perspective, but let me ask, too, not just the 2-year budget perspective and the risks associated with what you are going through to re-establish readiness, but give us a longer-term perspective too, because after 2016 we are back into the realm of sequester.

So give me your perspective not only of where we are with the risks that you will assume under a 2-year budget plan that is known, but, if you would, if you will give us some conjecture about two scenarios past that: level funding or back to sequester.

General HARRIS. Well, thank you, sir, for the opportunity to respond to that.

Readiness is complicated, and we use several different levers to make sure that we have the right balance of readiness. Because if we fully funded the flying hours associated with that, that would come out of our other modernization or installation accounts. So we are reducing each one of those to try and maximize that capability so that we get at what the Secretary and the Chief—is their second priority, is balancing readiness now versus modernization in the future.

Having that steady plan allows our engineers and our teams to go out and budget everything that we can for the next year and a half, 2 years, at the levels that we have and draw that cut line, having been in that Air Force cooperation that drew that. We took from the installation commanders; we prioritized that. We are now able to do that with one voice through IMSC, discussed earlier. And that is a benefit for us because then it looks across all portfolios, not just mine and the combat, but it covers transportation, the cyber, the space, all of the domains that we work in. And that is a huge help for us that will come to fruition over the next several years.

Having that, we draw that line, but then the emergencies that you hear about—the flooding at Laughlin that closes the base for 3 days—there are second- and third-order effects for that, but then we have to unfund something that was above the line and go put the money in that position. So that always changes our plan, but being able to plan at least gives us a starting point and allows us to talk about the priorities that are important for that readiness.

Once we have those portions of the conditions set, we also need to slow down on our deployment and our combat operations tempo. And right now the Air Force, we are not being asked today do less; we are being asked to go more, to push harder, to make sure that our enemy knows that not only are they not able to continue attacking but their time on this Earth is going to be reduced with the way we are taking the fight to them. That has impacts, then, on our weapons systems sustainment and our ability to acquire the munitions for that. Again, that is all balanced on that funding.

But once the conditions are set, deployment ratio, probably about a 1-to-4 OPSTEMPO [operations tempo], we have the ranges, the infrastructure that we need, with the threats, the emitters. We have the talent pool in our maintenance to turn and make sure that the equipment is ready to go. Then we start building that 8-to 10-year readiness that is going to take us a long time, that 8 to 10 years.

If any one of those aren't met, we are still holding that 8 to 10 years further down the road, so instead of being ready by 2023, if it is a delay of another year or two or, as you say, sir, if we go back to sequestration after the 2-year budget deal that we have, it will further delay that readiness picture.

Mr. WITTMAN. You are on track to re-establish full-spectrum readiness in 2023. Does the Bipartisan Budget Agreement of 2015 make any impact on that? Does it move that number to the left? Or does it just help you sustain the course to 2023?

General HARRIS. I would say, sir, at the PB-level [President's budget] funding, 2023 is within sight. But, again, we are not being asked to do less. So, right now, if you were to look at our war-fighters and the installations, we still have so many airmen down-range; they are not available for the training, and that is a part of that full-spectrum readiness.

So we are on track, but we are right on that razor's edge. If we are funded less or we don't get relief from the deployments doing our Nation's business, then it will push past 2023.

Mr. WITTMAN. Gotcha. Thank you. I understand the world gets a vote in that too.

Ms. Bordallo.

Ms. BORDALLO. Thank you, Mr. Chairman.

I have just a single question here for General Green.

In your testimony, you mentioned several examples of leveraging partnerships with local communities to address infrastructure needs at the Air Force installations.

Now, how are you determining priorities, deciding which projects are appropriate for funding through these partnerships and whether they are truly in the government's best interest to accept, operate, and maintain? Can you describe the controls that are in place so that the Air Force's requirements are being effectively met?

General GREEN. Yes, ma'am. Thank you for that question.

So who decides really depends on the level or the scope of the partnership with the community. So there are many agreements that the communities are able to make a partnership or have an agreement with the installation that they can execute at a local level, and so there would not be an Air Force enterprise look at that.

In other cases, where there are legal authorities involved, we are evolving toward prioritizing those kinds of efforts as well. But, initially, as we began exploring this, our wing commanders really had a lot of flexibility to work with our staff so we could learn what the art of the possible was. And now that we have experienced that, we recognize we have a better understanding and we need to begin prioritizing because we have limited staff. And so I think you will see over the next few years we will begin prioritizing those efforts.

One example would be, at Seymour Johnson Air Force Base in North Carolina, there is a partnership agreement that is being developed right now. I am not sure if it has been finally signed. But the community will use some installation land, some land that belongs to Seymour Johnson, and they will build a multi-field sports complex of eight fields, do different things.

And so the community will get to use that the majority of the time, the installation will get to use it for their rec [recreation] leagues, their youth leagues, some fitness training in the mornings, and some weekend tournaments. But that is about a \$6 million to \$8 million investment that the community will make on Air Force property that the Air Force will then be able to take advantage of those services. So it is a real win-win.

Other people are involved because it is an enhanced-use lease. There are authorities and agreements that have to be put in place. But as we get to those larger-scale agreements, I think we will

begin prioritizing those that today we are not. Today, we are learning what the art of the possible is, and then we are going forward with the prioritization.

Other agreements can be done locally. They can reach an agreement to have our medical personnel trained in the local emergency room and get some time down there. That does not require the Air Force to devote resources or identify all those requirements outside. So it just depends on the scope and the scale as to who will be making some of those decisions, ma'am.

Ms. BORDALLO. So, because of less funding now, are the partnership agreements—are there more now or less or—

General GREEN. There is certainly a great deal of interest now. And so, at many of our wings, I would even say today probably most of our wings, there is an effort, there are groups that are working between the installation and the local community to identify those areas where we can have partnerships and then spread those around.

So I believe it is the majority of our installations today that have a partnership program, and they are exploring those opportunities.

Ms. BORDALLO. In your opinion, General, would you say they are successful in most cases, or all cases, or—

General GREEN. Yes, ma'am, I think they are successful, because the process today that we are asking the community and the wing leadership to go through is to define the art of the possible and understand our limits. And so we want to go in with a pretty big aperture to see and think, but before we reach those specific agreements, we want to make sure they are win-win.

So I think by the time we are getting to the nuts and bolts, I think we really are having more win-win scenarios. And, again, they are not all big dollar, but I think we have more success than we have failures, because we will identify the obstacles along the way.

Ms. BORDALLO. And I feel it is good public relations when you are working with the community. I support this.

So I want to thank you very much for your testimonies.

And, Mr. Chairman, I yield back.

Mr. WITTMAN. Thank you, Ms. Bordallo.

And, General Green, General Harris, General Azzano, thank you so much for your testimony today, and we appreciate your perspective on this.

This is very important as go into this year's National Defense Authorization Act [NDAA] to make sure that we address readiness from an infrastructure, installations, and facilities support perspective, because many times we get somewhat myopic in how we see the element of readiness. And we understand that, in order to generate readiness, you have to have that foundation to create that readiness. So to be able to get your perspective and make sure we reflect that in this year's NDAA is going to be very important.

So, again, we thank you for your time today.

And, with that, our subcommittee is adjourned.

[Whereupon, at 10:03 a.m., the subcommittee was adjourned.]

A P P E N D I X

JANUARY 13, 2016

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

JANUARY 13, 2016

Statement of the Honorable Robert J. Wittman
Chairman, Readiness Subcommittee
“Effects of Reduced Infrastructure and Base Operating Support Investments on Air
Force Readiness”
January 13, 2016

Good morning. Thank you all for being here today for our Readiness hearing on the “Effects of Reduced Infrastructure and Base Operating Support Investments on Air Force Readiness.” This is our third hearing on the topic. The Army, Marine Corps, and Navy have previously testified on this topic, and I look forward to hearing the views of the Air Force today.

This morning we have with us:

- Maj Gen Timothy Green, USAF
Director of Civil Engineers, Deputy Chief of Staff for Logistics, Engineering and Force Protection, Headquarters U.S. Air Force
- Maj Gen Jerry D. Harris, Jr. USAF
Vice Commander, Air Combat Command, Langley Air Force Base, Virginia
- Brig Gen Christopher Azzano, USAF
Commander, 96th Test Wing, Air Force Materiel, Eglin AFB, Florida

During the last several years, the subcommittee has largely focused on operational readiness recovery since the drawdown of forces in the Middle East. The Department of Defense has implemented plans to correct readiness trends, but those plans have assumed risk in infrastructure investments and reduced mission support services to redirect funds from installation programs to other operational and training budget priorities. The purpose of this hearing is to clarify the Air Force’s choices for infrastructure and installation services, to address funding priorities and mitigation strategies, and to gather more detail on the current and future impacts of these decisions on operations and training.

As the witnesses testify, I would ask you to address existing risks being taken in installations investments and impacts to operations and training; how will the recent 2-year budget reshape those risks and impacts; and what will be the level of risk and impacts over the next 10 years if budget levels remain constant or return to sequestration levels?

**STATEMENT OF MAJOR GENERAL TIMOTHY S. GREEN
DIRECTOR OF CIVIL ENGINEERS
DEPUTY CHIEF OF STAFF/LOGISTICS, ENGINEERING AND FORCE PROTECTION
UNITED STATES AIR FORCE

BEFORE THE SUBCOMMITTEE ON READINESS
COMMITTEE ON ARMED SERVICES
UNITED STATES HOUSE OF REPRESENTATIVES
JANUARY 13, 2016**

Introduction

Chairman Wittman, Ranking Member Bordallo, distinguished Members of the Subcommittee, We are honored to represent America's Airmen and testify before you today on the effects of reduced infrastructure and base operating support investments on Air Force readiness.

Ready and resilient installations are a critical component of Air Force operations. Unfortunately, twenty-four years of continuous combat, a fiscal environment constrained by the Budget Control Act (BCA), and an incredibly complex security environment have taken their toll on Air Force infrastructure and base operations support investment.

For the Air Force, air bases—both enduring and expeditionary—serve as foundational platforms from which we project power through air, space and cyberspace. History has demonstrated this time and again from the very first use of airpower in warfare. Lessons of conflicts since World War I show that the presence or absence of a resilient basing infrastructure in terms of adequate capacity to support operations, geographic locations, survivability and recoverability, has a significant impact on airpower effectiveness. Airpower effectiveness, in turn, affects our ability to meet national military objectives.

While all services open, establish, operate and sustain bases, the Air Force arguably has a stronger dependency on its bases. For Airmen, the air base is integral for conducting operations. Air bases and supporting infrastructure assets host space control centers operating satellites on orbit; provide facilities for personnel and equipment to control, collect, process and disseminate intelligence data gathered through air-breathing and space reconnaissance assets; house network operations centers processing, transporting and protecting vital mission data through cyberspace; support strategic airlift moving people, equipment and fuel across the globe; provide runways to launch and recover fighters for air superiority and protection of our airspace; serve as launching points for our bombers and missile forces that hold global targets at risk; and more. The reliability, redundancy, and resiliency of installation infrastructure are keys to enabling Global Vigilance, Reach and Power; critical to deter and defeat those that wish to do us harm, as well as respond to natural disasters and other contingencies when needed. Additionally, our overseas bases signal commitment to our friends, and intent to our foes; foster

partnership-building with our Coalition partners; and enable worldwide accessibility in times of peace and war.

In addition to serving as the foundation for Air Force combat capabilities both stateside and overseas, many installations support training facilities and ranges that provide realistic environments for our Airmen to gain the operational and technical expertise necessary for full spectrum readiness. Rightfully, the first aspect of training we often think of is that Airmen must develop the skills necessary to provide air superiority of the skies above the battlespace; nuclear deterrence; close air support; and rescue Joint and Coalition partners downed or stranded behind enemy lines. Quality ranges, airfields, simulators, classrooms and aircraft maintenance facilities are essential to produce training that ensures American Airmen enter every fight ready and able to win. But there is much more to our readiness training than simply preparing our rated aviators for flying operations. From space operations to aircraft maintenance, we must prepare all Airmen to perform their missions.

Unique to the Air Force, our installations also serve as essential training ground for our Agile Combat Support (ACS) Airmen who deploy forward, often into combat zones, to establish, operate, sustain, protect and recover expeditionary air bases. Our uniformed ACS Airmen are fully integrated into the garrison workforce at many of our bases. At home they gain skills that directly transfer to capabilities we employ in contingency situations, while simultaneously operating our bases in peacetime.

Finally, the capacity and effectiveness of our depot infrastructure has a direct impact in keeping the oldest fleet of aircraft in the history of our Air Force flying, while our ability to develop innovative technologies and next-generation weapon systems is reliant on our research, development, training, test and evaluation ranges and infrastructure. In short, we can't fly, fight and win in air, space and cyberspace; develop mission ready Airmen; maintain existing operational assets; or create innovative new capabilities without effective, efficient and sustainable air bases.

Air Force Priorities

Recent Air Force budgets have been rooted in necessity and based on our long-term strategy and vision supporting the Air Force's three priorities of taking care of our people, balancing today's readiness with tomorrow's modernization, and making every dollar count to help ensure we can field, operate and maintain a credible and affordable future force. Providing ready and resilient installations is an important part of the Air Force's overall vision, but only one part. Due to the current constrained fiscal environment, we have made difficult choices within an incredibly complex security environment. These difficult choices have degraded the readiness of our weapon systems, the men and women who fly and fix them, and the already strained infrastructure that supports them, to the point where our core mission capabilities are at risk.

The Air Force's Fiscal Year (FY) FY2016 budget sustains current warfighting efforts, and places the Air Force on a path toward balancing readiness with necessary modernization in

order to meet evolving threats. It funds vital MILCON aircraft beddown projects, addresses facility sustainment shortfalls, and funds executable readiness components. However, even at the current PB level we had to make difficult choices between critical modernization programs and installation support. In fact, in March 2015, the Acting Assistant Secretary of Defense for Energy, Installations and Environment testified before this Committee that DoD Components continue to take risk in infrastructure in order to decrease risk in operational and training budgets, citing "while the Department's FY 2016 budget request funds critical projects that sustain our warfighting and readiness postures, taking continued risk across our facilities inventory will degrade our facilities and result in the need for significant investment for their repair and replacement in the future." We are already seeing the effects of this risk at many Air Force installations.

The Air Force recently published several complimentary foundational documents that will guide how we intend to meet the challenges of a future operating environment where our supremacy of the air, space and cyberspace will be challenged by both new and old foes. The Air Force Strategic Master Plan recognizes the importance of resilient, right-sized installations in order to project power rapidly, effectively and efficiently within our 20-year time horizon. Unfortunately, budget shortfalls and the return to Budget Control Act ceilings in FY2018 beyond the current Balanced Budget Agreement will continue to force us to trade installation needs with weapon system recapitalization and combat capacity.

Installation Resources

Your Air Force is operating as the oldest fleet in its history and is challenged by previous capacity reductions at a time when the demand for what we provide to combatant commanders remains at a constant high. In March of last year, the Assistant Secretary of The Air Force for Installations, Energy and Environment (SAF/IE) testified before this Committee that "Since the last BRAC round in 2005, the Air Force has 50,000 fewer personnel and 500 fewer aircraft in its planned force structure" and yet has not closed a single major Air Force installation in the United States. Without the ability to close bases, we are forced to sub-optimize installations and spread fewer aircraft and mission sets across the same number of bases simply to keep each of the bases open, with no operational benefit. SAF/IE also testified before this Committee that, "despite our best efforts and innovative programs, the Air Force continues to spend money maintaining excess infrastructure that would be better spent recapitalizing and sustaining our weapons systems, training to improve readiness, and investing in the quality of life needs of its Airmen. The Air Force continues to face hard choices between modernization and operational combat capability, and sustaining installation platforms used to conduct its missions". It is imperative that Congress provide BRAC authority.

The Air Force's Base Operations Support and Facilities Investment strategy is aligned with the Defense Strategic Guidance, as well as the OSD Fiscal Guidance. In spite of fiscal pressures, we requested, and Congress authorized and appropriated \$2.9 billion in Facilities, Sustainment, Restoration and Modernization (FSRM), \$1.6 billion in Military Construction (MILCON), and \$6.1 billion in Base Operating Support (BOS) funding for FY 2016. This level of resourcing slowly buys down the \$22.6 billion in backlogged maintenance, repair and

recapitalization MILCON requirements exacerbated by Sequestration in 2013, keeps Facilities Sustainment at 81 percent of projected needs in FY2016 and provides the minimum municipal-type services covered under BOS which is necessary to keep our installations running like the small cities they are.

We have not seen MILCON levels this low as a percentage of the overall Air Force budget since the early 1970s.¹ Operating under this constraint, we continue to support new weapon system beddowns (F-35 and KC-46), reinvigorate our nuclear enterprise (Weapon Storage Facility recapitalization at FE Warren Air Force Base (AFB), and Tactical Response Force Facility at Malmstrom AFB), and respond to the most urgent of Combatant Commander requirements (STRATCOM Headquarters, CYBERCOM Joint Operating Center, Asia-Pacific Resiliency projects). But we have been forced to delay most facility recapitalization efforts.

We recognized there would be challenges with current and projected BCA funding levels when we made our request. The current level of resourcing does not allow us to stem the continued, and at times accelerated, deterioration of infrastructure that will ultimately reduce facility life, infrastructure systems reliability, and increase repair costs. And it does not allow us to recapitalize those facilities we need to support current and future weapon systems, including our most important weapon system—our Airmen.

When we defer recapitalization of existing facilities, we don't just delay the bill, we bring on increased maintenance and sustainment costs, until we eventually pay the deferred recapitalization bill, increasing costs in the long run. Sometimes systems fail suddenly, though perhaps predictably, in areas where we "accept risk."

Today we depend on planned and emergency repairs using limited FSRM and the innovation of our Airmen to find resourceful fixes to hard problems. While our Airmen are incredibly adept in responding to emergency facility repairs that directly impact the mission, they can only do so much for an infrastructure portfolio that continues to age. Thirty-three percent, more than 16,000 of our nearly 50,000 facilities, exceed their design life of 50 years and nearly 55 percent of our facilities are at least 30 years old. With the rapid evolution of technology over the past two decades, many of our facilities are not only inefficient, but ineffective. We continue to see examples of infrastructure failure that, despite the best efforts of our skilled Airmen, have a direct impact on mission capabilities.

We can continue to patch and mend, but that can only take us so far. Evolutions in technology place new burdens on our legacy facilities and their supporting infrastructure that outpace facility modernization and recapitalization resources. Just as we continue prioritizing weapon system recapitalization over modernization of our legacy fleet, we need a similar emphasis for our installations. Our 50 year old facilities need extra time and attention to keep them serviceable. But this extra "tinkering" takes valuable funding and manpower away from other requirements. And no matter how much tinkering we do, they will still be 50-plus year old.

¹ Since FY11, our MILCON budget has ranged from 0.36% to 1.08% of total Air Force TOA. The only other time in our history that we have seen MILCON levels this low was between 1969 and 1974, where MILCON was between 0.83% and 0.97% of total Air Force TOA.

buildings, with little insulation in the walls, often original wiring, plumbing and inefficient heating and air conditioning systems. We want our facilities to, incorporate necessary energy and cyber security requirements in order to operate more securely, effectively and efficiently. Today, because limited resources make it difficult to fund consolidation of operations and demolition of excess facilities, the Air Force continues to keep too many of our worst legacy facilities in the inventory. Likewise, the costs to keep buildings in "mothball" status do not make good economic sense when considering the sheer enormity of our installation portfolio and the excess capacity we retain.²

It is also important to note that the "patching" and "mending" mentioned above only comes about as a result of the extraordinary efforts of our dedicated Airmen. When we can't afford to repair the runway and its deteriorating condition generates a flight hazard, we answer that problem by sending Airmen out to perform constant surveillance to sweep the airfield and remove crumbling pieces of airfield pavement then mark the area for repairs at a later time.

Finally, I've spoken about the importance of installations with respect to enabling our Air Force missions and how base services are integral to their successful operations. One final factor in sustaining our bases infrastructure and services for your consideration is that in most cases we operate, or must be able to operate, 24 hours a day, 7 days a week, 365 days a year. A few of our support activities such as fire and emergency services and base security do occur 24/7/365, regardless of base missions, while other services operate when the mission dictates. The mission drives dining facility and child development services hours, when computer network or HVAC technicians work and more. Air Force Child & Youth and Morale, Welfare and Recreation Programs are a critical workforce issue to our Airmen. Reduced funding directly affects our ability to ensure our Airmen and families are mission-ready and resilient.

In all cases, our support operations require consistent, predictable funding. Our ability to optimize and be the most efficient with the taxpayer's dollar depends on regular, reliable funding streams and the timing of those funds. The uncertainty that comes with sequestration's threats, although overcome by the recent Bipartisan Budget Act for this year; make the delicate balance of base support to missions even more difficult to master. For example, the timing of funding sometimes forces us to make the expedient decision but not the best decision, such as developing multiple contracts or purchase orders in response to each hiccup in funding. These actions often not only cost millions of dollars more, but consume far more man hours from our team as they develop workaround options.

Balancing Priorities and Finding Innovative Solutions

Faced with constrained resources and an environment where budget decisions involve picking the best of bad choices, we aim to make every dollar count by targeting limited installations resources toward requirements which have the highest consequence to the mission coupled with the highest probability of infrastructure failure. We recently stood up the Air Force Installation and Mission Support Center (AFIMSC) to provide an enterprise view of our

² The Air Force has 229 times the pavement of Dallas-Fort Worth International Airport and 3 times the facilities of Target.

installations, leverage lessons learned from across our Major Commands, and constantly strive to improve our core installation business processes balanced against maintaining combat effectiveness. While they are still in transition from initial operating capability to full operating capability, the AFIMSC has already proven their worth in supporting installations with weapon system beddown planning, FSRM project execution, and functional management of ACS personnel deploying to support operations in the Middle East and elsewhere.

The establishment of the AFIMSC centralizes management of BOS in a single intermediate-level organization. This provides an opportunity for greater synchronization of effects, innovation, potential increases in operational efficiencies, and the ability to allocate funding against the Air Force's highest priorities using a transparent, consistent, and standardized governance system. As such, we continue our Air Force Common Output Level Standards (AFCOLS) development in order to provide more consistent, standardized levels of service at our installations. AFCOLS is the system used to determine level of service in an area and then the appropriate associated level of funding to achieve that standard for installation support services. AFCOLS includes areas such as law enforcement and physical security protection; fire and emergency services; installation food services and Morale, Welfare and Recreation and other services grouped under the Sub Activity Group Z exhibit reported in the President's Budget Justification Books. The Air Force executes BOS-type functions differently than our Sister Services, with less reliance on contracted support. In areas that are contracted, reduced levels of services, though they are more standard across the Air Force, have often resulted in "lost" Airmen's time. Airmen may be forced to wait longer to get an identification card as availability of customer service personnel are reduced or participate in building cleaning details as custodial standards are lowered. So even though we are identifying efficiencies through standardization, it does not guarantee that we are able to fund the services to a desired level of effectiveness.

To help close the funding gap, we persist in leveraging third party financing in areas that include housing and utilities privatization, energy savings performance contracts, and enhanced-use leases. A key component to third party financing is the ability of the third party to finance, or loan, capital investment funding to the government in order to upgrade existing systems and facilities. This saves capital funds in the near-term while committing the Air Force to smaller, recurring payments over a longer period—in some cases, up to 50 years. Third-party financing is an important means for improving infrastructure we need, but it must be applied to the right challenges, at the right time, for the right term. The Department must be able to follow through on our long term financial commitments in order to retain third party financing as a viable and flexible resourcing strategy.

Driving innovation into all aspects of our business is critical to our success. We continue our journey toward implementing condition-based maintenance vice scheduled maintenance to more effectively use our facilities funding, which has taken important steps forward in 2015. We have forged innovative partnerships with local community partners that have produced tangible results. Examples include the recent \$4 million grant we received from the State of Texas to construct a new Defense Control Center at Laughlin AFB and the ongoing initiative by the City of Goldsboro, NC to fund, construct, and maintain an estimated \$8 to \$12 million multi-sport

complex and fund construction of a 2,500 square foot addition to the base fitness center estimated to cost \$600 thousand at Seymour Johnson AFB. The Air Force seeks more resilient, cost-effective, and cleaner power for our bases. We are doing this by leveraging Energy Savings Performance Contracts, Power Purchase Agreements and Enhanced Use Lease authority on our installations to enhance our energy security while maximizing private sector investments in energy savings and renewable energy initiatives. We are also partnering with our Army and Navy counterparts to identify and execute integrated projects at key Air Force installations to better leverage our collective efforts to deliver increased mission assurance through improved energy assurance.

In keeping with innovation, the Air Force is also modernizing the dining platform through the Food Transformation Initiative (FTI), a strategic feeding solution for the entire installation at the most efficient and effective cost which creates dining venues similar to those on corporate, college and university campuses. FTI was recognized by the National Restaurant Association (NRA) nationally as the 2013 Operator Innovations Award winner in the Health and Nutrition category for its transformational initiative—a first ever military winner by industry peers. To date, 14 Air Force bases are operating under FTI. Future portfolios have been identified for an additional 31 installations however funding to renovate and convert the facilities has not been identified.

Conclusion

Today we stand at a crossroad of competing requirements and austere funding, all in the context of a complex, dangerous operating environment both at home and abroad. Add to that the uncertainties of a budget beyond the current two-year agreement, an Air Force that has been in combat for 25 continuous years, and an excessive infrastructure portfolio that is older than most of the aircraft it supports, and you have the formula for a wicked problem.

But, your Air Force was born of innovation. From the first time the pioneers of the Army Air Corps found ways to go “over, not through,” the Air Force has embraced new ways of thinking, taken prudent risks to achieve missions success, and encouraged innovation to solve hard problems. We continue to evolve our asset management approach to installation requirements, with a focus on what we need our installations to be, versus what they have been. While we can mitigate the most critical of mission impacts, we can’t mitigate all of them. The bill for the installations that serve as the power projection platforms for air, space and cyberspace combat capabilities is coming due—we see examples today of the reduced reliability and efficiency of facilities, infrastructure and installation services on our bases around the world.

Thank you for the opportunity to appear before you today and for your continued support for our Total Force Airmen and their families.



BIOGRAPHY



UNITED STATES AIR FORCE

MAJOR GENERAL TIMOTHY S. GREEN

Maj. Gen. Green is the Air Force Director of Civil Engineers, Deputy Chief of Staff for Logistics, Engineering and Force Protection, Headquarters U.S. Air Force. He is responsible for installation support functions at 166 Air Force bases worldwide with an annual budget of more than \$11 billion. He is also responsible for organizing, training and equipping the 52,000-person engineering force, and for planning, development, construction, maintenance, utilities and the environmental quality of Air Force bases worldwide valued at more than \$251 billion. This responsibility also includes services for housing, fire protection, aircraft crash and rescue, explosive ordnance disposal and disaster preparedness.

General Green entered the Air Force in 1987 as a graduate of the ROTC program at Texas A&M University. He has commanded a civil engineer squadron and mission support group and served as Special Assistant to two commanders of U.S. European Command/Supreme Allied Commander of Europe. Prior to assuming his current position, General Green served as the Director of Installations and Mission Support for Air Mobility Command and then Air Combat Command.

The general served as Director of Installations for Air Force Forces in Southwest Asia during the 2007-2008 surge of U.S. forces into Iraq for Operation Iraqi Freedom, supporting more than \$1.2 billion in military construction and engineer operations at 15 installations in 10 countries throughout the U.S. Central Command area of responsibility. General Green is a registered Professional Engineer in the state of Texas.

EDUCATION

1986 Bachelor of Science degree in civil engineering, Texas A&M University 1992 Master of Science degree in civil engineering, Texas A&M University 1992 Distinguished graduate, Squadron Officer School, Maxwell AFB, Ala. 1997 Air Command and Staff College, by seminar
1999 Air Command and Staff College, Maxwell AFB, Ala. 2000 Air War College, by seminar
2005 National War College, Fort Lesley J. McNair, Washington, D.C.

ASSIGNMENTS

1. October 1987 - July 1990, Environmental Coordinator and Design Engineer, 47th Civil Engineer Squadron, Laughlin AFB, Texas
2. August 1990 - January 1992, Student, Texas A&M University, College Station, Texas
3. January 1992 - September 1994, Technical Assistant, Pollution Prevention Directorate, and Staff Officer, Pollution Prevention Division, Air Force Center for Environmental Excellence, Brooks AFB, Texas
4. October 1994 - September 1996, Chief of Engineering Contracts, Chief of Construction Management, 36th Civil Engineer Squadron, Andersen AFB, Guam
5. Oct 1996 - July 1998, Operations Flight Commander, 43rd Civil Engineer Squadron, Pope AFB, N.C.
6. August 1998 - June 1999, Student, Air Command and Staff College, Maxwell AFB, Ala.
7. July 1999 - June 2002, Assistant Executive Officer, Office of the Chief of Staff and Military Construction Program Manager, Engineering Division, Office of the Civil Engineer, Deputy Chief of Staff for Installations and Logistics, Headquarters U.S. Air Force, Washington, D.C.
8. July 2002 - July 2004, Commander, 31st Civil Engineer Squadron, Aviano Air Base, Italy
9. August 2004 - June 2005, Student, National War College, Fort Lesley J. McNair, Washington, D.C.
10. July 2005 - June 2007, Commander, 99th Mission Support Group, Nellis AFB, Nev.
11. June 2007 - June 2008, Director, Installations (A7), Air Force Forces, Combined Air and Space Operations Center, Southwest Asia
12. July 2008 - May 2009, Chief, Programs Division, Office of the Civil Engineer, Deputy Chief of Staff for Installations and Mission Support, Headquarters U.S. Air Force, Washington, D.C.
13. May 2009 - July 2011, Special Assistant to the Commander, U.S. European Command, and Supreme Allied Commander Europe, Supreme Headquarters Allied Powers Europe, Mons, Belgium
14. July 2011 - June 2013, Director of Installations and Mission Support, Headquarters Air Mobility Command, Scott AFB, Ill.
15. June 2013 - March 2014, Director of Installations and Mission Support, Headquarters Air Combat Command, Joint Base Langley-Eustis, Va.
16. March 2014 - present, Air Force Director of Civil Engineers, Deputy Chief of Staff, Logistics, Engineering and Force Protection, Headquarters U.S. Air Force, Washington D.C.

SUMMARY OF JOINT ASSIGNMENTS

1. May 2009 - July 2011, Special Assistant to Commander U.S. European Command and Supreme Allied Commander Europe; Supreme Headquarters Allied Powers Europe, Belgium, as a colonel and brigadier general

MAJOR AWARDS AND DECORATIONS

Defense Superior Service Medal
 Legion of Merit
 Bronze Star Medal
 Air Force Meritorious Service Medal with five oak leaf clusters
 Air Force Commendation Medal
 Joint Meritorious Unit Award
 Air Force Outstanding Unit Award with three oak leaf clusters
 Air Force Organizational Excellence Award with oak leaf cluster
 National Defense Service Medal with bronze star
 Global War on Terrorism Expeditionary Medal
 Global War on Terrorism Service Medal
 Nuclear Deterrence Operations Service Medal

EFFECTIVE DATES OF PROMOTION

Second Lieutenant May 10, 1987
 First Lieutenant May 10, 1989
 Captain May 10, 1991
 Major September 1, 1997
 Lieutenant Colonel May 1, 2000
 Colonel Aug. 1, 2004
 Brigadier General April 1, 2011
 Major General June 5, 2015

(Current as of June 2015)



BIOGRAPHY



UNITED STATES AIR FORCE

MAJOR GENERAL JERRY D. HARRIS JR.

Maj. Gen. Jerry Harris is Vice Commander, Air Combat Command, Langley Air Force Base, Virginia. He assists the Commander in organizing, training, equipping and maintaining combat-ready forces for rapid deployment and employment while ensuring strategic air defense forces are ready to meet the challenges of peacetime air sovereignty and wartime defense. The command operates more than 1,300 aircraft, 34 wings, 19 bases, and has more than 70 operating locations worldwide with 94,000 active-duty and civilian personnel. When mobilized, the Air National Guard and Air Force Reserve contribute more than 700 aircraft and 49,000 people to ACC. As the Combat Air Forces lead agent, ACC develops strategy, doctrine, concepts, tactics, and procedures for air- and space-power employment. The command provides conventional and information warfare forces to all unified commands to ensure air, space and information superiority for warfighters and national decision-makers. The command can also be called upon to assist national agencies with intelligence, surveillance and crisis response capabilities.

General Harris entered the Air Force in 1985 as a graduate of the ROTC program at Washington State University. He has served as a flight commander, operations officer, weapons officer, and inspector general. The general served on the staffs of two numbered Air Forces and one major command, all in operations. He has also served as the Combined Air and Space Operations Center Battle Director for operations Iraqi Freedom and Enduring Freedom. General Harris has commanded at squadron, group and wing levels. Prior to his current assignment, he was the Director of Programs, Office of the Deputy Chief of Staff for Strategic Plans and Programs, Headquarters U.S. Air Force, Washington, D.C.

General Harris is a command pilot with more than 3,100 flying hours in the F-16.

EDUCATION

1985 Bachelor of Science in Mechanical Engineering, Washington State University
 1992 Squadron Officer School, Maxwell AFB, Ala.
 1997 Air Command and Staff College, Maxwell AFB, Ala.
 1997 Master of Science in Aeronautical Science Technology, Embry-Riddle Aeronautical University, Daytona Beach, Fla.
 1998 School of Advanced Airpower Studies, Maxwell AFB, Ala.
 1998 Master of Science in Airpower Art and Science, School of Advanced Airpower Studies, Maxwell AFB, Ala.
 1998 Armed Forces Staff College, Norfolk, Va.
 2001 Air War College, by correspondence
 2006 National Defense College, New Delhi, India
 2011 Capstone General and Flag Officer Course, National Defense University, Washington, D.C.

ASSIGNMENTS

1. February 1986 - January 1987, Student, undergraduate pilot training, Williams AFB, Ariz.
2. January 1987 - April 1987, Student, AT-38B lead-in fighter training, Holloman AFB, N.M.
3. April 1987 - December 1987, Student, F-16 B-Course, MacDill AFB, Fla.
4. December 1987 - July 1989, Chief, Current Operations Division; Squadron Assistant Programmer; Training Officer; and Mobility Officer, Nellis AFB, Nev.
5. August 1989 - January 1992, Chief of Weapons and Tactics and Air-To-Surface Weapons Officer, Moody AFB, Ga.
6. January 1992 - February 1992, Student, Squadron Officer School, Maxwell AFB, Ala.
7. February 1992 - March 1994, Chief of Mid-range Programming and Student, Fighter Weapons School, Luke AFB, Ariz.
8. March 1994 - June 1996, Weapons and Tactics Flight Commander; Chief of Wing Weapons; and Chief of Squadron Weapons, Eielson AFB, Alaska
9. July 1996 - July 1998, Student, School of Advanced Airpower Studies and Air Command and Staff College, Maxwell AFB, Ala.
10. July 1998 - September 1998, Student, Armed Forces Staff College, Norfolk, Va.
11. September 1998 - March 1999, NATO Joint Staff Officer, Long-range Plans, Plans and Policy, Headquarters, Southern Region Air Command, Naples, Italy
12. March 1999 - August 2000, Chief of Strategy, Crisis Action Group, Headquarters Southern Region Air Command, Naples, Italy
13. September 2000 - January 2001, Student, F-16 requalification, Luke AFB, Ariz.
14. January 2001 - February 2003, Operations Officer and Chief of Standardization and Evaluation, 20th Operations Group; and

assistant Director of Operations, 79th Fighter Squadron, Shaw AFB, S.C.
 15. March 2003 - February 2005, Commander, 79th Fighter Squadron, Shaw AFB S.C.
 16. March 2005 - July 2005, Staff Director and Inspector General, 20th Fighter Wing, Shaw AFB S.C.
 17. July 2005 - December 2005, Deputy Commander, 20th Operations Group, Shaw AFB S.C.
 18. January 2006 - January 2007, Student, National Defense College, New Delhi, India
 19. January 2007 - July 2008, Commander, 505th Training Group, Hurlburt Field, Fla.
 20. July 2008 - November 2008, Director of Air, Space and Information Operations, 13th Air Force, Hickam AFB, Hawaii
 21. November 2008 - September 2009, Commander, 8th Fighter Wing, Kunsan Air Base, South Korea
 22. September 2009 - September 2010, Assistant Director of Operations, Plans, Requirements and Programs, Headquarters Pacific Air Forces, Hickam AFB, Hawaii
 23. September 2010 - September 2012, Commander, 56th Fighter Wing, Luke AFB, Ariz.
 24. September 2012 - March 2014, Vice Commander, 5th Air Force, Yokota Air Base, Japan
 25. March 2014 - April 2015, Director of Programs, Office of the Deputy Chief of Staff for Strategic Plans and Programs, Headquarters U.S. Air Force, Washington, D.C.
 26. April 2015 - present, Vice Commander, Air Combat Command, Joint Base Langley-Eustis, Virginia

SUMMARY OF JOINT ASSIGNMENTS

September 1998 - August 2000, NATO Joint Staff Officer, Long-range Plans, Plans and Policy; and Chief of Strategy, Crisis Action Group, Headquarters Southern Region Air Command, Naples Italy, as a major

FLIGHT INFORMATION

Rating: command pilot
 Flight hours: more than 3,300
 Aircraft flown: F-16, T-37, T-38, Mig-29 and Mig-21

AWARDS AND DECORATIONS

Legion of Merit with two oak leaf clusters
 Defense Meritorious Service Medal
 Meritorious Service Medal with two oak leaf clusters
 Air Medal with three oak leaf clusters
 Aerial Achievement Medal
 Air Force Commendation Medal with two oak leaf clusters
 Joint Service Achievement Medal
 National Defense Service Medal with bronze star
 Southwest Asia Service Medal with three bronze stars
 Kuwait Liberation Medal (Kingdom of Saudi Arabia)
 Kuwait Liberation Medal (government of Kuwait)

EFFECTIVE DATES OF PROMOTION

Second Lieutenant May 11, 1985
 First Lieutenant Sept. 1, 1987
 Captain Sept. 1, 1989
 Major Sept. 1, 1995
 Lieutenant Colonel April 1, 2000
 Colonel Jan. 1, 2006
 Brigadier General Nov. 3, 2010
 Major General June 27, 2014

(Current as of July 2015)



BIOGRAPHY



UNITED STATES AIR FORCE

BRIGADIER GENERAL CHRISTOPHER P. AZZANO

Brig. Gen. Christopher P. Azzano is Commander, 96th Test Wing, Air Force Materiel Command, Eglin Air Force Base, Florida. He leads more than 9,800 military, civilian, and contractor personnel in accomplishing the test wing's missions of developmental testing and evaluation of conventional munitions, command and control systems, aircraft avionics and guidance systems, and radar cross section measurement. He is also responsible for providing all base operating support, infrastructure, and services support for the Department of Defense's largest installation (724 square miles). He commands eight groups and 32 squadrons. The test wing operates 38 modified test aircraft; manages 120,000 square miles of over-water test ranges, plus facilities in six different states. The 96th TW also supports seven tenant wings and wing equivalent units to include the 33rd Fighter Wing (F-35 Joint Strike Fighter), the Army's 7th Special Forces Group (Airborne), Joint Explosive Ordnance Disposal Training Center, and 37 other associate units including the Army's 6th Ranger Training Battalion and the Air Force's 20th Space Control Squadron. As commander, he interacts with local officials across a 3-county, 11-city region with a military economic impact of \$2.7 billion annually.

General Azzano has flown more than 2,700 hours in 35 aircraft types as an instructor pilot, evaluator pilot, and experimental test pilot. He has conducted developmental tests on a wide range of aircraft and weapons, and previously commanded an operations group and flight test squadron. Prior to joining the 96th Test Wing, General Azzano commanded the 72nd Air Base Wing, Tinker AFB, Oklahoma, where he was responsible for a workforce of 26,000 and direct support to the Air Force Sustainment Center, the Oklahoma City Air Logistics Complex, and 42 other associate units.

General Azzano is a graduate of the Air Force Intern Program and the Air War College. He holds Master's degrees in Aerospace Engineering and Strategic Studies. He was previously assigned as an Air Force Legislative Fellow, advising a member of the United States Congress on defense issues and international affairs.

EDUCATION

- 1987 Bachelor of Science in Aerospace Engineering, Purdue University, West Lafayette, Ind.
- 1988 Master of Science in Aerospace Engineering, Stanford University, Stanford, Calif.
- 1997 Certificate in Organizational Management, George Washington University, Washington, D.C.
- 1998 Squadron Officer School, Maxwell AFB, Ala.
- 2000 U.S. Air Force Test Pilot School, Edwards AFB, Calif.
- 2006 Air Force Legislative Fellowship, Washington, D.C.
- 2007 Certificate in Legislative Studies, Georgetown University, Washington, D.C.
- 2011 Master of Strategic Studies, Air War College, Maxwell AFB, Ala.
- 2012 Center for Creative Leadership, Greensboro, N.C.
- 2014 Enterprise Leadership Seminar, University of North Carolina, Chapel Hill

ASSIGNMENTS

1. February 1991 - April 1992, Student, Euro-NATO Joint Jet Pilot Training, Sheppard AFB, Texas
2. May 1992 - March 1993, Flight Safety Officer, Sheppard AFB, Texas
3. April 1993 - June 1993, Student, Lead-in Fighter Training, Holloman AFB, N.M.
4. July 1993 - February 1994, Student, F-15E Replacement Training Unit, Luke AFB, Ariz.
5. March 1994 - July 1996, F-15E Pilot, 336th Fighter Squadron, Seymour Johnson AFB, N.C.
6. August 1996 - November 1997, Air Force Intern, the Pentagon, Washington, D.C.
7. December 1997 - June 1999, F-15E Instructor Pilot, Wing Executive Officer, 391st Fighter Squadron, 368th Air Expeditionary Wing, Mountain Home AFB, Idaho
8. July 1999 - June 2000, student, U.S. Air Force Test Pilot School, Edwards AFB, Calif.
9. July 2000 - April 2003, F-15 Experimental Test Pilot, F-15 Chief Pilot, F-15 Flight Commander, 40th Flight Test Squadron, Eglin AFB, Fla.
10. May 2003 - August 2005, Assistant Operations Officer, Operations Officer, data masked
11. September 2005 - December 2006, Air Force Legislative Fellow, Washington, D.C.
12. January 2007 - June 2008, Chief, Advanced Weapons and Sensors Division, Assistant Secretary of the Air Force for Acquisition, Special Programs Directorate, the Pentagon, Washington, D.C.

- 13. June 2008 - July 2010, Commander, Flight Test Squadron, Data Masked
- 14. July 2010 - June 2011, Student, Air War College, Maxwell AFB, Ala.
- 15. June 2011 - June 2013, Commander, 412th Operations Group, Edwards AFB, Calif.
- 16. June 2013 - Commander, 72nd Air Base Wing, Tinker AFB, Okla.
- 17. June 2015 - present, Commander, 96th Test Wing, Eglin AFB, Fla.

FLIGHT INFORMATION

Rating: command pilot

Flight Hours: more than 2,700

Aircraft Flown: 35 different types, including the F-15E, F-15C, F-16, and C-12

MAJOR AWARDS AND DECORATIONS

2015 Air Force Materiel Command Jerome F. O'Malley Award (Wing Commander and Spouse Team)

2001 U.S. Air Force Lt. Gen. Bobby Bond Memorial Aviator Award

2001 Air Armament Center NDIA Military Tester of the Year

2001 Air Armament Center Daedalian Exceptional Pilot Award

Liethen-Tittle Award, U.S. Air Force Test Pilot School, Class 99B

1992 Orville Wright Achievement Award, Order of the Daedalians

Legion of Merit with one oak leaf cluster

Meritorious Service Medal with four oak leaf clusters

Air Medal with one oak leaf cluster

Aerial Achievement Medal with four oak leaf clusters

Air Force Commendation Medal with oak leaf cluster

EFFECTIVE DATES OF PROMOTION

Second Lieutenant Feb. 13, 1991

First Lieutenant Feb. 13, 1993

Captain Feb. 13, 1995

Major Feb. 1, 2002

Lieutenant Colonel March 1, 2006

Colonel Sept. 1, 2010

Brigadier General Sept. 2, 2015

(Current as of September 2015)

**WITNESS RESPONSES TO QUESTIONS ASKED DURING
THE HEARING**

JANUARY 13, 2016

RESPONSE TO QUESTION SUBMITTED BY MR. SCOTT

General GREEN. Commanders at Air Force depots have sufficient flexibility within the Working Capital Fund (WCF) to fund needed Facility Sustainment, Restoration, and Modernization (FSRM). However, requirements have increased significantly. One contributing factor is the difficulty to obtain needed current mission Military Construction (MILCON) funding as the Air Force has been forced to prioritize force readiness and modernization and take risks in installation support. Budgets for FSRM continue to rise as the facilities get older and the depots develop long range plans to provide flexible and responsive facilities. Increases in FSRM spending can increase the WCF rates and drive greater costs to the warfighter. [See page 15.]

QUESTIONS SUBMITTED BY MEMBERS POST HEARING

JANUARY 13, 2016

QUESTIONS SUBMITTED BY MR. WITTMAN

Mr. WITTMAN. To what extent do the reported readiness levels of installations take into consideration the condition of their facilities? Are there other metrics or data points used to assess the effect of facility condition on readiness?

General GREEN. Installation and mission commanders report and track facility issues that affect mission readiness. This reporting ensures attention and appropriate resource prioritization to correct deficiencies. However, formal AF readiness metrics do not include facility condition as a measure. The primary metric used for facility condition, the Facility Condition Index, assesses the remaining service life of facilities, but not readiness impact. Faced with constrained resources and an environment where budget decisions involve picking the best of bad choices, we aim to make every dollar count by targeting limited installations resources toward requirements which have the highest consequence to the mission coupled with the highest probability of infrastructure failure.

Mr. WITTMAN. How has the Air Force attempted to quantify the risks they are taking by perennially reducing their investments in base support services and infrastructure, if at all?

General GREEN. The Air Force uses AFCOLS (Air Force Common Output Level Standards) as the system to determine levels of service such as law enforcement and physical security protection; fire and emergency services; installation food services and Morale, Welfare and Recreation and other Sub Activity Group Z funded services reported in the PB J-Books. AFCOLS helps us understand risk, informs Commanders of the appropriate levels of service needed to support their mission, and provides a method from which to make resource decisions. For facilities, the Air Force plans to use Facility Condition assessments to assess risk and inform prioritization of funding; we are on track to meet OSD's Sep 2017 deadline for Facilities, Airfield Pavements, and Rail Systems; however, other Pavements and Utilities won't be done until Sep 2019.

The Air Force prioritizes infrastructure and facility investment requirements based on risk within an asset management construct. The program evaluates facility investment requirements based on risk to mission and personnel by examining the probability and consequence of failure of an asset or system (e.g. facility, pavements, utility, etc.) Our methodology incorporates mission assurance criteria including a mission dependency index and Commander mission-criticality input. The prioritization process ensures the Air Force allocates resources to the right assets, at the right time, which reduces long-term deferred maintenance costs, allows limited resources to be applied to the highest mission priorities and retains visibility on deferred priorities for potential future funding. The Air Force continues to mature risk-based investment within a constrained resource environment, targeting mission assurance and posturing resilient installations.

Mr. WITTMAN. Given consecutive years of funding below the targeted sustainment model and recapitalization requirements, how is funding prioritized in terms of which facility investments, both in terms of FSRM and MILCON, will be supported at a given installation? How have those decisions impacted military readiness and operation or training requirements?

General GREEN. The Air Force (AF) creates an Integrated Priority List of facility requirements which begin by using scoring models for both the MILCON and O&M programs. The models capture Commanders' prioritization, combined with facility condition and mission dependency to focus the score on probability and consequence of failure. Air Force personnel then evaluate the lists using military judgement to make any final adjustments to what will be funded based upon our understanding of mission requirements. The AF treats many areas of BOS as a must pay bill and takes risk where it can with decreased levels of service; however, we expect an increase in FSRM costs over time due to reduced levels of service.

The Air Force's Base Operations Support and Facilities Investment strategy is aligned with the Defense Strategic Guidance, as well as the OSD Fiscal Guidance. In spite of fiscal pressures, we requested, and Congress authorized and appropriated \$2.9 billion in Facilities, Sustainment, Restoration and Modernization (FSRM), \$1.6 billion in Military Construction (MILCON), and \$6.1 billion in Base Operating Sup-

port (BOS) funding for FY 2016. This level of resourcing slowly buys down the \$22.6 billion in backlogged maintenance, repair and recapitalization MILCON requirements exacerbated by Sequestration in 2013, keeps Facilities Sustainment at 81 percent of projected needs in FY2016 and provides the minimum municipal-type services covered under BOS which is necessary to keep our installations running like the small cities they are.

Mr. WITTMAN. What is the impact of funding sustainment, restoration and modernization and military construction below requirements over the long term? What level of investment and over what period of time do you think will be necessary to fully restore the readiness of our installations and facilities?

General GREEN. When we defer recapitalization of existing facilities, we don't just delay the bill, we bring on increased maintenance and sustainment costs, until we eventually pay the deferred recapitalization bill—often at a higher cost. The delay increases costs in the long run. A return to investment at 2% of plant replacement value across the maintenance and repair portfolio, as baselined with leading industries, will over time stem the deterioration of infrastructure. The length of time to recover will depend upon how many years underfunding continues.

Mr. WITTMAN. What impact has the substantial reduction in MILCON spending had on the ability of installations to support readiness and serve as power-projection platforms? How has significant new mission beddown requirements impacted ability to recapitalize existing mission facilities?

General GREEN. The reduction in MILCON spending has forced the Air Force to prioritize and fund more mission critical projects, to include many new mission bed-down projects, at the expense of projects with less immediate mission impact and support facilities. By prioritizing in this manner, there is less impact on readiness and power projection and more impact on quality of life and support facilities. The impact of large new mission programs has been to essentially replace current mission MILCON projects. When I think of the available funding for the MILCON program as a pie plate, the new mission pieces simply fill space on the pie plate that could have been used for current mission.

The Air Force has experienced mission impacts when unexpected facility failures occurred during the period in which the Air Force accepted "risk." For example, as the Air Force delayed recapitalizing the weapon storage and missile maintenance area at Malmstrom Air Force Base currently projected in the FY19 MILCON program, the impacts have been significant. In the last 5 years day-to-day Operations and Maintenance and labor costs have increased 280 percent and, due to security system inadequacies, an additional 3,000 man-hours of human surveillance are required annually. Recent flooding and fire suppression failures have also cancelled training and certification operations for six months. Consequently, munitions experts are expected to work extra shifts, likely contributing to a drop in retention from 75 percent to 20 percent in the last 5 years. While engineers continued to implement Band-Aid fixes, the acceptance of risk toward infrastructure reached a tipping point, and the failing facility negatively affected nuclear mission readiness and resulted in tens of millions of dollars in repair costs in order to continue operations.

Last year one of the choices the Air Force made was to request the Cape Canaveral Range Communications Facility that is critical to NRO, NASA and commercial launches on the Eastern Range and eliminates a single point of failure. The project was authorized and appropriated in the FY16 budget. Only time will tell if the new project is completed before a failure occurs such as we have experienced at the Minot Combat Arms Facility and the Malmstrom Missile Maintenance Facility.

Mr. WITTMAN. Why has the Air Force slowed their implementation of Utilities Privatization efforts? Does the Air Force plan to continue the program on their remaining utility systems? If not, why?

General GREEN. The Air Force slowed implementation of Utilities Privatization (UP) efforts as a result of the effects of constrained funding anticipated from the Budget Control Act and budget sequestration in FY13. Good-faith contracting practices required us to refrain from starting new UP solicitations until funding could be sourced and identified in specific appropriations. Our foresight proved correct; we would have been issuing new requests for proposal without sufficient resources to fund contracts. The Air Force plans to continue the program and steps have been taken to source and restore funding for the UP program across the FYDP. This will permit us ensure proper analysis of each project's business case and privatize each system where it makes sense to do so.

Mr. WITTMAN. Are there any legislative gaps or impediments that hinder implementation of Utilities Privatization? Does the Air Force need specific funding authority for UP contracts or other changes in authorities to allow program implementation to be more efficient?

General GREEN. As currently written, 10 USC §2688 provides useful tools for Utilities Privatization (UP). One area that could streamline and enhance Energy Resiliency efforts is inclusion of specific language that would authorize the military services to include the provision of renewable energy systems and facilities in new and existing utility services contracts, where mission appropriate. Current authorities for renewable energy projects do not enable the services to leverage potential efficiencies associated with obtaining renewable energy from an existing electric system owner located on an installation. The authority at 10 U.S.C. §2922a generally contemplates a separate contract for new facilities requiring Secretary of Defense approval. This authority is typically used to contract with third party renewable energy companies to construct free standing renewable energy production facilities both on and outside of installations. Significant efficiencies could be leveraged if the services could contract directly with the installation's privatized electric utility services provider, who already owns the electric generation and distribution facilities on the installation. Express provisions in §2688 for including renewable energy projects in UP contracts would significantly improve the military services' ability to seamlessly implement renewable energy within existing and newly awarded utility services contracts.

The Air Force recommends and requests statutory authority within 10 USC §2688 to allow the use of UP funds across fiscal years for the monthly Utility Services portion of the contract. Often the period of performance for UP contracts does not align with the fiscal year, and service contracts which are severable, may not cross fiscal years. Authority to use funds across FYs for UP contracts would help reduce or minimize contract modifications, quarterly spending authority constraints, and delays in system owners receiving funds for services.

Mr. WITTMAN. How has the Air Force attempted to quantify the risks they are taking by perennially reducing their investments in base support services and infrastructure, if at all?

General HARRIS. [No answer was available at the time of printing.]

Mr. WITTMAN. Have reductions in civilian- or contract-provided services for utility system operations; installation equipment maintenance; engineering services including fire protection, crash rescue, custodial, refuse collection, snow removal, and lease of real property; security protection and law enforcement; and motor pool transportation operations impacted availability of facilities that support operations and training?

General HARRIS. Yes, in many instances, reduced funding for government civilian and contract provided services have impacted facilities across the Air Force. Despite Air Force and installation commander efforts to mitigate impacts, reduced funding for these services has affected the availability of facilities that support operations and training.

Utility System Operations

Reductions in contract provided utility systems support have impacted operations at Fairchild AFB. The reduction of civilians maintaining the utility systems and infrastructure, combined with the aging and weathering of facilities, have caused a multitude of issues including: ventilation leaks, roof leaks, and outdated electrical systems. This has resulted in a problem within the 1940s-era maintenance facility where a sand blast booth has become inoperable due to water leaks. Additionally, water leaking in an air handler above the Engine Shop has caused a whole work center to have to move to an alternate location.

At Joint Base McGuire-Dix-Lakehurst, the base electrical system is still pole mounted with aging components. Funding cuts for craftsmen have slowed the initiatives to replace the aging infrastructure with newer and more resilient underground systems. In the last six months, there have been two significant outages affecting the area which supports the 108th National Guard. On one, an old transformer failed causing a major outage to the area, impacting a drill weekend. In the second, a pole failed supporting the same area causing a 4 hour power outage impacting training and requiring an 8 hour scheduled outage to complete the repairs.

Lakehurst Naval Air Station, part of Joint Base McGuire-Dix-Lakehurst, has the worst rated electrical system in Air Mobility Command. Some of the facilities, still used today, pre-date the Hindenburg which crashed at Lakehurst on 6 May 1937. The main lighter-than-air hangar is still used today and is a Historical Facility. However, some of the infrastructure systems are just as old. Current electric shop staffing and funding is insufficient to maintain the old system. There are routinely major power outages across Lakehurst due to the age of the main substation, switchgear, and feeder lines. The impacts on the R&D mission at NAVAIR, and the retrofit of carrier launch systems, are significant when power goes out. One recent example was in August 2015, when a damaged feeder switch caused a power outage

for a few days, resulting in a day-for-day slip for the electro-magnetic catapult and advanced arresting system test schedule.

Installation Equipment Maintenance Engineering Services

Also at Joint Base McGuire-Dix-Lakehurst, the Army CERDEC is using an old hangar from 1941. They have over \$1.2B worth of assets in the hangar. Reductions in contracted maintenance have resulted in the hangar doors sagging and jamming. The south end is locked closed and recently the north end failed. Other facility maintenance issues have required that overhead netting be installed to prevent falling pieces of ceiling from damaging the aircraft and injuring people.

Fire Protection and Crash Rescue

Hurlburt Field lost one fire truck mechanic and one heavy-duty mechanic position in 2013, which contributed to a loss of operations capacity. These personnel provided operations continuity for special purpose vehicles, training to new Airmen, and steady production levels at home station during active duty military deployments. The non-availability of special purpose vehicle mechanics has impacted the capability to perform recurring maintenance and repairs contributing to a work order backlog and extending the time and cost to complete in-service projects.

Snow Removal

At Fairchild AFB, reductions in contract services for street and parking lot snow removal have slowed to focus on airfield support. Where there were once 3 to 4 operators working to keep base streets plowed, budget cuts now only allow for 1 or 2 operators. This has directly affected first responder response time to reported emergencies and has affected Alert Crew response from various base locations when trying to get back to aircraft upon being alerted. Budget cuts now only allow for the contractor to be called out in the event of snowfalls of 2 inches or greater. This means that any snowfall less than 2 inches is the responsibility of in-house forces. Time spent for snow removal detracts from performing operations and training.

Mr. WITTMAN. What is the impact of funding sustainment, restoration and modernization and military construction below requirements over the long term? What level of investment and over what period of time do you think will be necessary to fully restore the readiness of our installations and facilities?

General HARRIS. When we defer recapitalization of existing facilities, we don't just delay the bill, we bring on increased maintenance and sustainment costs, until we eventually pay the deferred recapitalization bill—often at a higher cost. The delay increases costs in the long run. A return to investment at 2% of plant replacement value across the maintenance and repair portfolio, as baselined with leading industries, will over time stem the deterioration of infrastructure. The length of time to recover will depend upon how many years underfunding continues.

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General AZZANO. Yes, in many instances, reduced funding for government civilian and contract provided services have impacted facilities across the Air Force. Despite Air Force and installation commander efforts to mitigate impacts, reduced funding for these services has affected the availability of facilities that support operations and training.

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QUESTIONS SUBMITTED BY MS. BORDALLO

Ms. BORDALLO. How are you ensuring that there is effective oversight of local community partnerships which extend beyond utilities, housing, food, and other general services, that these partnerships are in the government's best interest, and that Air Force requirements are being effectively met?

General GREEN. In the "make every dollar count," campaign the Air Force has put a concentrated effort to cultivate partnerships between our installations and the local communities. Subject matter experts (e.g., legal, contracting, financial management) at the installation, Air Force Installation and Mission Support Center, and Headquarter Air Force levels are actively involved in partnership initiative development and implementation. Additionally, Headquarters Air Force has established an Executive Steering Group (ESG) comprised of cross-functional Air Force senior leaders to review and provide unified direction, guidance, and leadership to efficiently and effectively manage the overall Air Force Community Partnership (AFCP) program and appropriate initiatives. The ESG leverages the knowledge and expertise of its cross-functional membership to develop/modify AFCP policy and to make informed and sound decisions on large, Air Force-wide initiatives or individual initiatives that may have implications beyond a single installation. The ESG ensures partnerships are in the government's best interest and that Air Force requirements are being met.

Ms. BORDALLO. In your testimony you referred to not just primary impacts, but also second and third degree effects on readiness of reduced infrastructure investment, especially in Base Operations Support. Could you provide several notable examples and their resource costs, financial as well as time and manpower?

General GREEN. Reduced infrastructure investment has tangible impacts on installation readiness and Base Operations Support, despite Air Force and installation commander's best efforts to mitigate impacts. Some notable examples include:

For example, the Non Commissioned Officer (NCO) Academy at Keesler AFB, where we prepare NCOs to assume increased front line leadership responsibilities, continually experiences flooding from water line breaks, power outages, and mold growth from a failing heating and air conditioning system. In the last year the facility, which was constructed in 1941, was closed 3 times for a total of 2.5 months, which impacted 175 students and required 2,800 man-hours to complete restoration activities. These closures hamper NCO training and education and directly impact NCOs growth as leaders in every organization supported by the school, including aircraft maintainers responsible for sortie generation.

At Laughlin AFB, the 1953 vintage airfield storm drainage system has exceeded its useful life and no longer performs as needed. Heavy storms flood the airfield several times a year, terminating pilot training for up to 3 days until flood waters recede. Each flood event typically results in the loss of 375 sorties directly impacting pilot training, which in turn can impact overall course length.

Another example of failing storm drainage infrastructure is at Keesler AFB, where the piping and manholes were installed in the 1940s. The system has exceeded its 50 year life expectancy by 25 years and no longer provides adequate drainage. At Keesler we find areas of rapid erosion, surface damage and sinkholes and our deferred maintenance increased repair costs 40%. Personnel monitor 60 sinkholes each week, spending 800 manhours and over \$56K per year on the effort. Phase I to repair the drainage system was awarded in FY15 for \$3.9M, but phase 2 fell below the funding line in FY16 and is competing again in FY17.

